

TRG 7115

#### RECEIVED

20070312 Upimal Inst 10 4P-5875- Series # 7115 March 12, 2007

Mr. Christopher Terpolilli The Reynolds Group 520 W. 1st St. Tustin, CA 92780

Dear Mr. Terpolilli:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for The Reynolds Group on March 9, 2007. The study was performed at 1551 E. Orangethorpe Avenue, Fullerton, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil, and if possible determine potential source area(s).

# Sampling Method

Sampling was performed by hydraulically pushing 1/2" steel soil gas probes to a depth of 5.0 feet bgs. An electric rotary hammer drill was used to drill a 1.0 inch hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location an electric vacuum pump (set to draw 0.1-2.0 liters/min of soil vapor at a maximum vacuum of 100" of water) was attached to the probe and purged prior to sample collection. Vapor samples were obtained in Hamilton gas-tight syringes by puncturing silicone tubing which connects the sampling probe and the vacuum pump. New silicone tubing was used at each sampling point to prevent cross contamination. Samples were immediately injected into the gas chromatograph after collection. New sampling probes were used after each sample with positive results. Equipment blanks using ambient air were collected throughout the day. If significant contamination is detected in these blanks, corrective actions would be taken to identify and eliminate the source, if possible.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Flame Ionization Detector (FID) and an Electron Capture Detector (ECD). Restec wide bore capillary columns using hydrogen as the carrier gases were used to perform all analysis. All results were collected on a personal computer utilizing Hewlett Packard's PC based chromatographic data eollection and handling system.

#### Quality Assurance

#### 3-Point Calibration

An initial 3-point calibration was performed on March 9, 2007 by preparing a calibration solution from a pre-mixed standard supplied by Supelco, Inc. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 ng/ul and 0.25 ng/ul.

The initial three point calibrations consisted of 20, 100 and 500 ul injections of the calibration solutions. A calibration factor on each analyte was generated using a best fit line method using the HP data system. If the r<sup>2</sup> factor generated from this line was not greater than 0.990, an additional three point calibration would have been performed. Method detection limits were calculated to be 1.0 ug/L for the individual compounds.

#### TABLE 1

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	

#### Sample Replicates

A replicate analysis (duplicate) is run when concentrations exceed the calibrated range of the instrument/detector being used. The duplicate sample is diluted using a smaller injection volume to assure that the instrument response falls within 50% of the calibrated range. In addition, a duplicate analysis is run a minimum of once each day to evaluate the reproducibility of the sampling system and instrument. If the difference between samples varies more than 20%, the entire system is evaluated and the inconsistency is determined and corrected, if possible.

#### Equipment Blanks

Blanks are run at the beginning of each workday, after calibrations and whenever sampling conditions appear to change. New vapor probes are used following each sample with positive results or when probes were damaged during installation. The blanks are collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

#### **Subsurface Conditions**

Subsurface soil conditions at this site were predominantly sandy from ground surface to 5.0 feet bgs. These soil conditions offered sampling flows at 0" water vacuum. Depth to groundwater was unknown at the time of the investigation.

#### Scope of Work

To achieve the objective of this investigation a total of 19 vapor samples were collected from 17 locations throughout the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

#### Results

During this vapor investigation fifteen sample locations contained levels of Tetrachloroethene (PCE). PCE levels ranged from 1.4 ug/L at SV-15 to 222.2 ug/L at SV-10. Fourteen sample locations contained levels of Trichloroethene (TCE) and 1,1-Dichloroethene. TCE levels ranged from 1.9 ug/L at SV-11 to 115.2 ug/L at SV-6. 1,1-Dichloroethene levels ranged from 3.2 ug/L at SV-2 to 79.7 ug/L at SV-10. Eleven sample locations contained levels of 1,1,1-Trichloroethane (TCA). TCA levels ranged from 1.2 ug/L at SV-10 to 83.5 ug/L at SV-5 & SV-12. Freon 113 was found in six locations. Freon 113 levels ranged from 3.7 ug/L at SV-8 to 8.3 ug/L at SV-14. Four samples contained levels of cis-1,2-Dichloroethene. Cis-1,2-Dichloroethene levels ranged from 1.1 ug/L at SV-2 to 2.5 ug/L at SV-3. Finally, two samples contained levels of Vinyl Chloride. Vinyl Chloride levels were 1.1 ug/L at SV-13 and 3.2 ug/L at SV-12. None of the other compounds listed in Table 1 above were detected above the listed detection limits. A complete table of analytical results is included with this report.

#### Disclaimer

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions please contact me at (818) 734-6230.

Sincerely,

Jason Anderson Project Manager



# **OPTIMAL TECHNOLOGY**

Specializing in Environmental Field Services

## **SOIL VAPOR RESULTS**

Site Name: 1551 E. Orangethorpe Ave., Fullerton, CA

Lab Name: Optimal Technology

Date: 3/9/07

Analyst J.A.

Inst. ID: HP-5890 Series II

Page: 1 of 3

Collector: J.A.

**Detectors:** FID and ECD

SAMPLE ID	N/A
Sampling Depth (Ft.)	N/A
Purge Volume (ml)	N/A
Vacuum (in. of Water)	N/A
Injection Volume (ul)	500/500
Dilution Factor (ECD/FID)	1/1

BLANK-1	SV-1	SV-1 Dil.	SV-2	SV-3	SV-4	SV-5	SV-6
N/A	5.0	5.0	5.0	5.0	5.0	5.0	5.0
N/A	1,500	1,500	1,500	1,500	1,500	1,500	1,500
N/A	0	0	0	0	0	0	0
500/500	500/500	100/500	100/500	100/500	100/500	100/500	100/500
1/1	1/1	5/1	5/1	5/1	5/1	5/1	5/1

COMPOUND	DET. LIMIT
Dichlorodifluoromethane	1.0
Chloroethane	1.0
Trichlorofluoromethane	1.0
Freon 113	1.0
Methylene Chlonde	1.0
1,1-Dichloroethane	1.0
Chloroform	1.0
1,1, i-Trichloroethane	1.0
Carbon Tetrachloride	1.0
1,2-Dichloroethane	1.0
Trichloroethene (TCE)	1.0
1,1,2-Trichloroethane	1.0
Tetrachloroethene (PCE)	1.0
1,1,1,2-Tetrachloroethane	1.0
1,1,2,2-Tetrachloroethane	1.0
Vinyl Chloride	1.0
Acetone	1.0
1 1-Dichloroethene	1.0
trans-1,2-Dichloroethene	1.0
2-Butanone (MEK)	1.0
cis-1,2-Dichloroethene	1.0
Cyclohexane	1.0
Benzene	1.0
4-Methyl-2-Pentanone	1.0
Toluene	1.0
Chlorobenzene	1.0
Ethylbenzene	1.0
	4.0
m/p //y lene	1.0

| CONC (ug/L) |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| ND          |
| ND          | ND.         | ND          | ND          | ND          | ND          | ND.         | ND          |
| ND          |
| ND          | 4.7         | 5.5         | ND          | ND          | ND          | ND          | ND          |
| ND          |
| ND          |
| ND          |
| ND          | 53.6        | 55.0        | 3.4         | 12.7        | 11.2        | 83.5        | 71.8        |
| ND          |
| ND          |
| ND          | 69.9        | 70.7        | 11.0        | 38.6        | 24.2        | 58.2        | 115.2       |
| ND          |
| ND          | OS          | 78.8        | 15.3        | 36.4        | 39.2        | 35.3        | 80.3        |
| ND          |
| ND          |
| ND          |
| ND          | ND          | ND          | ND          | ND.         | ND          | ND          | ND          |
| ND          | 17.4        | 18.2        | 3.2         | 25.3        | 9.1         | 40.4        | 65.3        |
| ND          |
| ND          | ND.         |
| ND          | ND          | ND          | 1.1         | 2.5         | ND.         | 1.2         | 1.2         |
| ND          |
| ND.         | ND          |
| ND          |
ND	ND	ND.	ND	ND	ND	ND.	ND.
ND	ND	ND.	ND	ND	ND	ND.	ND
ND	ND	ND	ND	ND.	ND	ND	ND
ND	ND	ND	ND	ND	ND.	ND	ND
ND							

Note: ND = Below Listed Detection Limit; OS = Off the electronic scale of detector



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Date: 3/9/07

Analyst J.A. Collector: J.A.

Inst. ID: HP-5890 Series II

Detectors: FID and ECD

Page: 2 of 3

SAMPLE ID_	N/A
Sampling Depth (Ft.)	N/A
Purgo Volume (ml)	N/A
Vacuum (in. of Water)	N/A
Injection Volume (ul)	500/500
Dilution Factor (ECD/FID)	1/1

SV-7	SV-8	SV-9	SV-10	SV-11	SV-11 Dup	SV-12	SV-13
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
0	0	0	0	0	0	0	0
100/500	100/500	100/500	100/500	100/500	100/500	100/500	100/500
5/1	5/1	5/1	5/1	5/1	5/1	5/1	5/1

COMPOUND	DET. LIMIT
Dichlorodifluoromethane	1.0
Chloroethane	1.0
Trichlorofluoromethane	1.0
Freon 113	1.0
Methylene Chloride	1.0
1.1-Dichloroethane	1.0
Chloroform	1.0
1,1,1-Trichloroethane	1.0
Carbon Tetrachloride	1.0
1,2-Dichloroethane	1.0
Trichloroethene (TCE)	1.0
1,1,2-Trichloroethane	1.0
Tetrachloroethene (PCE)	1.0
1,1,1,2-Tetrachloroethane	1.0
1,1,2,2-Tetrachioroethane	1.0
Viny: Chloride	1.0
Acetone	1.0
1,1-Dichloroethene	1.0
trans-1,2-Dichloroethene	1.0
2-Butanone (MEK)	1.0
cis-1,2-Dichloroethene	1.0
Cyclohexane	1.0
Benzene	1.0
4-Methyl-2-Pentanone	1.0
Toluene	1.0
Chlorobenzene	1.0
E'hylbenzene	1.0
m/p-Xylene	1.0
o-Xylene	1.0

| CONC (ug/L) |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| ND.         | ND          |
| ND          |
| ND          |
| 6.9         | 3.7         | ND          | 4.4         | ND          | ND          | 3.9         | ND          |
| ND.         | ND          |
| ND          |
| ND          | ND.         | ND          | ND          | ND          | ND          | ND          | ND          |
| 11.3        | 4.3         | ND          | 1.2         | <b>N</b> D  | ND          | 83.5        | ND          |
| ND          |
ND.	ND						
101.7	22.6	11.6	88.8	1.9	1.8	50.4	16.3
ND	ND	ND.	ND	ND	ND I	ND	ND
99.6	7.2	53.7	222.2	34.9	32.0	72.8	7,4
ND							
ND	ND	ND	ND	ND	ND I	ND	ND
ND	ND_	ND	ND	ND	ND	3.2	1.1
ND	ND	ND_ND	ND	ND	ND	ND	ND
78.3	17.7	6.0	79.7	ND	ND	63.6	7.4
ND	ND.						
ND							
ND	ND	ND.	ND	ND	ND	ND	ND
ND	ND	ND	ND.	ND	ND	ND.	ND
ND ND	ND.	ND_	ND.	ND	ND	ND	ND
ND	ND	ND	ND	ND.	ND	ND	ND
ND							
ND.	ND ND	ND	ND	ND	ND	ND	ND
ND ND	ND	ND.	ND	ND	ND	ND	ND
ND ND	ND	ND ND	ND	ND	ND	ND	ND
ND	ND	<u>N</u> D	ND	ND	ND	ND	ND

Note: ND = Below Listed Detection Limit



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SAMPLE ID	N/A
Sampling Depth (Ft.)	N/A
Purge Volume (ml)	N/A
Vacuum (in. of Water)	N/A
Injection Volume (ui)	500/500
Dilution Factor (ECD/FID)	1/1

SV-14	SV-15	SV-16	SV-17		
5.0	5.0	5.0	5.0		
1,500	1,500	1,500	1,500		
0	0	0	0		
100/500	100/500	100/500	100/500		
5/1	5/1	5/1	5/1		

COMPOUND	DET. LIMIT
Dichlorodifluoromethane	1.0
Chioroethane	1.0
Trichlorofluoromethane	1.0
Freen 113	1.0
Methylene Chioride	1.0
1,1-Dichloroethane	1.0
Chloroform	1.0
1,1,1-Trichloroethane	1.0
Carbon Tetrachloride	1.0
1,2-Dichloroethane	1.0
Trichloroethene (TCE)	1.0
1,1,2-Trichloroethane	1.0
Tetrachioroethene (PCE)	1.0
1,1,1,2-Tetrachloroethane	1.0
1,1,2,2-Tetrachloroethane	1.0
Vinyl Chloride	1.0
Acetone	1.0
1,1-Dichloroethene	1.0
trans-1,2-Dichloroethene	1.0
2-Butanone (MEK)	1.0
cis-1,2-Dichloroethene	1.0
Cyclohexane	1.0
Benzene	1.0
4-Methyl-2-Pentanone	1.0
Toluane	1.0
Chlorobenzene	1.0
Ethylbenzene	1.0
m/p-Xylene	1.0
o-Xylene	1.0

CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)			
ND	ND.	ND	ND			
ND	ND	ND.	ND			
ND	ND	ND	ND			
8.3	ND	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
6.3	ND	D	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
98.7	ND	ND	ND			
ND	ND	ND	ND			
<u>5</u> 0.1	1.4	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
78.2	<u>54.4</u>	ND	ND			
ND	ND	ND	ND	_		
ND	ND	ND	ND			
ND.	ND	ND	ND		-	
ND	ND	ND	ND			
ND	ND	ND	ND.			
ND	ND	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			
ND.	ND	ND	ND			
ND	ND	ND	ND			
ND	ND	ND	ND			

Note: ND = Below Listed Detection Limit



# COUNTY OF ORANGE HEALTH CARE AGENCY

# REGULATORY HEALTH SERVICES ENVIRONMENTAL HEALTH

JULIETTE A. POULSON, RN, MN DIRECTOR

MIKE SPURGEON

DEPUTY AGENCY DIRECTOR REGULATORY HEALTH SERVICES

RICHARD SANCHEZ, REHS, MPH DIRECTOR

ENVIRONMENTAL HEALTH

MAILING ADDRESS. 1241 E DYER ROAD STE 120 SANTA ANA, CA 92705-5611

TELEPHONE: (714) 433-6000 FAX: (714) 754-1768 E-MAIL ehealth@ochca com

#### HAZARDOUS MATERIALS MANAGEMENT SECTION

# Remedial Action Agreement Notification (Revised)

Orange County Health Care Agency, Environmental Health proposes to enter into a Remedial Action Agreement with the Responsible Party listed below. Pursuant to Section 101487, Article 5, Chapter 4, Part 3, Division 101 of the Health & Safety Code, the following information is provided as notification to your Agency.

Α.	A. Site Name Fullerton Business Park-North  Site Address 1551 Orangethorpe Avenue, Fullerton, CA 92833						
B.	B. Responsible Party Universal Molding Company  Mailing Address 9151 East Imperial Highway, Downey, CA 90240  Contact Person Dominick Baione Telephone Fax						
C.	Site Owner Universal Molding Company  Mailing Address Same As Above  Telephone (714) 920-9362						
D. Any known or planned Local, State or Federal regulatory involvement? ☑ Yes ☐ No  Remedial investigation/action oversight							
E.	E. Notification Date July 24, 2007  If you have questions, please contact Luis Lodrigueza at (714) 433-6253 ( <i>Phone</i> ) or (714) 754-1768 ( <i>Fax</i> ).						
Att So 579 Cy	partment of Toxic Substances Control ☑ n: Greg Holmes, Unit Chief uthern California Cleanup Operations 96 Corporate Avenue press, CA 90630 one: (714) 484-5438	California Regional Water Quality Control ☑ Board - Santa Ana Region Attn: Ann Sturdivant, Chief SLIC.DOD.AGT Section 3737 Main Street, Suite 500 Phone: (951) 782-4130 Riverside, CA 92501-3339 Fax:: (951) 781-6288					